Application No. 09/802,239   ASPN 1000-1

REMARKS

In the Official Action mailed 22 October 2004, the Examiner reviewed claims 1-15. The Examiner rejected claims 1, 4-7, 10-12, 14 and 15 under 35 U.S.C. §103(a); rejected claim 9 under 35 U.S.C. §103(a); and rejected claims 2, 3, 8 and 13 under 35 U.S.C. §103(a).

No claims are amended. Claims 1-15 remain pending.

Each rejection is respectfully traversed below.

Rejection of Claims 1, 4-7, 10-12, 14 and 15 under 35 U.S.C. §103(a)

Claims 1, 4-7, 10-12, 14 and 15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Manning et al. (US 6,088,578) in view of Ruszczyk et al. (US 5,615,212) and further in view of Fall et al. (US 5,430,724). Reconsideration is respectfully requested in light of the following comments. These comments could not have been made earlier because they address the new grounds of rejection presented by the Examiner.

The Examiner conceded that Manning et al. does not teach limitations in claim 1, including the following:

> a resource monitor within the subscriber terminal, for receiving
> information concerning the traffic loading of predetermined elements of the
> wireless telecommunications system, and for applying predetermined criteria
> based on that information to determine how long the uplink communication
> channel may be acquired for by the subscriber terminal for its own use before
> causing the subscriber controller to release the uplink communication channel
> for use by other subscriber terminals, arranged so that the subscriber terminal
> is allowed to acquire the uplink communication channel for a longer period
> than that required to send an individual data packet, but is prevented from
> keeping the uplink communication channel acquired indefinitely.

The Examiner relies upon Ruszczk et al. for the purpose of teaching "a resource monitor within the subscriber terminal..." Applicant respectfully disagrees.

In particular, the Examiner points to two separate descriptions in Ruszczk et al.: first, column 1, lines 45 to 51 where a technique of "pipeline polling" is described, and second, column 4, lines 25 to 35, where Ruszczk et al. refers to its Figs. 2 and 3. Ruszczk et al. relates to a polling technique, and as discussed in its background section at column 1, lines 16 to 19,

polling is a technique where a central controller asks users if they have information to transmit, and then allows the users to transmit according to a predetermined scheme. The pipeline polling technique, cited first by the Examiner, involves users that maintain "some state information." This does not suggest the claimed resource monitor in any sense. In fact, the central controller does all scheduling in the described pipeline polling technique.

Ruszczk et al. then describes an entry polling (EP) technique as cited second by the Examiner, where a central scheduler 104 (see Figure 1) determines which priority class of users is to receive dedicated bandwidth on the upstream channel and when users in that class will be allowed to contend in an EP slot (see column 3, lines 27 to 29). As explained in column 4, lines 8 to 10 of Ruszczk et al., when a number of users contend for access, this information is received and processed by the adaptive reservation manager 107 of Figure 1, and the next EP slot is defined based on global and local information. The global information is discussed at column 4, lines 25 to 30. Presumably the Examiner is reading the resource manager of the claims on logic inherent in the "user" of Ruszczk et al., which receives the EP control packet, determines eligibility to contend for a mini-slot, and contends for access to the slot based on that eligibility. See, Fig. 3. In Ruszczk et al., however, the allocation of channels to particular users is managed centrally, and the information transmitted in an EP control packet to the users merely identifies to those users whether they are eligible to contend for access. There is no "resource monitor" in the users of the channel described by Ruszczk et al. The users in Ruszczk et al. act without regard to traffic loading on the channel, when the central controller signals eligibility.

The claimed resource manager receives "information concerning the traffic loading of predetermined elements of the wireless telecommunications system." Contrary to the view taken by the Examiner, the information being transmitted in the EP control packet does not concern the traffic loading, as referenced in claim 1. Rather the EP control packet is merely permission to contend for a slot. Permission to contend does not amount to information about traffic loading as required in the claim. For example, an embodiment described in the specification of the present application provides a "control variable" that is a function of average load on the channels. See page 19, line 12 to page 20, line 18. There is no analogous information provided to a resource monitor in a user in the teaching of Ruszczk et al.

Further, it is clear that in Ruszczk et al. there is no resource monitor within the users for applying predetermined criteria based on such traffic loading information "to determine ... how long the uplink communication channel may be acquired for by the subscriber terminal for its

own use." In contrast, such a decision is taken in the EP control packet by the central scheduler 104 and all that is provided at the user (subscriber) end is some logic to process received EP control packets so that the user can determine whether it is eligible to contend for access to the communication channel. Accordingly, it is clear that Ruszczk et al. does not add any relevant teaching which would direct a person skilled in the art to modify the teaching of Manning et al. to arrive at the subject matter of the amended independent claims 1, 11 and 12.

The Examiner also concedes that the teaching of Manning et al. in combination with Ruszczyk does not specifically disclose a system where the subscriber terminal is allowed to acquire the uplink communication channel for a longer period than that required to send an individual data packet. With regard to this feature, the Examiner relies on the teaching of Fall et al., and in particular column 4, lines 59 to 61.

Fall et al. states that "each user is permitted to transmit uninterrupted data until a complete block of data has been sent," in the segment cited the Examiner. The "complete block" in Fall et al. is "defined to be smaller than the size of the PCM frame" being sent, at column 4, lines 61-63. Thus, Fall et al. teaches allocating less bandwidth than is required for a PCM frame, and only enough for a single block. Indeed, the complete block in Fall et al. falls within the definition of a single data packet on page 2, lines 2 to 6, of the present application as originally filed, that a "data packet" refers to a discrete block of data. Accordingly, it is clear that Fall et al. does not teach the acquiring of an uplink communication channel for a longer period than that required to send an individual data packet. Rather, Fall et al. teaches only the allocation of bandwidth for a single block at a time, which is less than its PCM frame.

Independent claim 11 includes a "resource monitor" limitation similar to that of claim 1, and distinguishes over the prior art for at least the same reasons.

Independent claim 12 includes the "receiving ...", "applying..." and "causing ..." steps, performed "at the subscriber terminal." None of the references provides these limitations as should be apparent for the reasons discuss above with reference to the resource monitor limitation of claim 1.

From the above reasoning, it is clear that the present independent claims 1, 11 and 12 are clearly inventive over a combination of the teachings of Manning et al., Ruszczyk and Fall et al.

Claims 4-7 and 10 depend from claim 1, and claims 14 and 15 depend from claim 12, and are therefore allowable for at least the same reasons, and because of the unique combinations recited.

Accordingly, reconsideration of the rejection of claims 1, 4-7, 10-12, 14 and 15 in light of the above remarks is respectfully requested.

Rejection of Claim 9 under 35 U.S.C. §103(a)

Claim 9 is rejected under 35 U.S.C. §103(a) as being unpatentable over Manning et al. (US 6,088,578).

Claim 9 depends from claim 1, and is therefore allowable for at least the same reasons, and because of the unique combination recited.

Accordingly, reconsideration of the rejection of claim 9 as amended is respectfully requested.

Rejection of Claims 2, 3, 8 and 13 under 35 U.S.C. §103(a)

Claims 2, 3, 8 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Manning et al. (US 6,088,578) in view of Ruszczyk et al. (US 5,615,212) and further in view of Fall et al. (US 5,430,724) and Chakrabarti et al. (US 6,678,281).

Claims 2, 3 and 8 depend from claim 1 and claim 13 depends from claim 12, and are therefore allowable for at least the same reasons as their base claims, and because of the unique combinations recited.

In addition, the Examiner has again mistakenly referred to column 8, lines 18 to 41 of Chakrabarti et al. as disclosing all of the additional features of claim 2. However, as set forth in the response to the first official action, the section cited by the Examiner refers to element 112 and to Figure 3 of Chakrabarti et al. Element 112 is not within the mobile station. Rather, element 112 is a "serving GPRS support node SGSN," and not part of the Chakrabarti et al. mobile station MS (elements 10, 20 of Fig. 1 of Chakrabarti et al.). Accordingly, Chakrabarti does not teach the provision of a resource monitor within the subscriber terminal.

In addition, with reference to section 7 "Response to Arguments", the Examiner has mistakenly stated that that the phrase "within the subscriber terminal" has been deleted from claims 2 and 13. Although the claims were amended to remove the clause, the limitation was added to their respective base claims, and therefore not removed. The limitation that the "resource monitor" is within the subscriber terminal is now incorporated in independent claims 1 and 12, and hence is inherently present in claims 2 and 13.

Accordingly, reconsideration of the rejection of claims 2, 3, 8 and 13 in light of the above remarks is respectfully requested.

CONCLUSION

It is respectfully submitted that this application is now in condition for allowance, and such action is requested.

The Commissioner is hereby authorized to charge any fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (ASPN 1000-1).

Respectfully submitted,

Dated: _16 Dec 04_

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